

## CLAIMS

1. A method of scheduling communications, comprising:  
selecting a plurality of terminal pairs each having a transmitting terminal and a corresponding receiving terminal;  
determining a target quality parameter for each of the receiving terminals; and  
scheduling simultaneous signal transmissions from each of the transmitting terminals to its corresponding receiving terminal, the scheduling of the simultaneous transmissions including selecting a power level for each of the signal transmissions that satisfies the target quality parameter for each of the receiving terminals.
2. The method of claim 1 further comprising scheduling a different spreading code for each of the signal transmissions.
3. The method of claim 1 wherein the quality parameter comprises a carrier-to-interference ratio.
4. The method of claim 1 further comprising scheduling a data rate for each of the signal transmissions.
5. The method of claim 4 wherein the scheduled data rate for one of the signal transmissions from one of the transmitting terminals is used to determine the target quality parameter at the corresponding receiving terminal.
6. The method of claim 4 wherein the scheduled data rate for the signal transmissions is a function of the type of service requested for each of the terminal pairs.
7. The method of claim 1 further comprising broadcasting the schedule to each of the terminal pairs.
8. The method of claim 7 further comprising spreading the broadcast with a code.

9. The method of claim 1 wherein the scheduling of the simultaneous transmissions is a function of path loss information from each of the transmitting terminals to each of the receiving terminals.

10. The method of claim 9 further comprising receiving the path loss information from one or more of the terminals.

11. The method of claim 1 wherein the terminal pairs are selected from a piconet of terminals.

12. The method of claim 11 wherein the scheduling of simultaneous transmissions is a function of path loss information from each of the transmitting terminals to each of the receiving terminals.

13. The method of claim 12 further comprising receiving the path loss information from one or more of the piconet terminals.

14. The method of claim 12 further comprising constructing a piconet topology map, and deriving at least a portion of the path loss information from the piconet topology map.

15. The method of claim 1 further comprising transmitting one of the scheduled signal transmissions to a corresponding one of the receiving terminals.

16. The method of claim 1 further comprising receiving one of the scheduled signal transmissions from a corresponding one of the transmitting terminals.

17. A communications terminal, comprising:  
a scheduler configured to select a plurality of terminal pairs each having a transmitting terminal and a corresponding receiving terminal, determine a target quality parameter for each of the receiving terminals, and schedule simultaneous signal transmissions from each of the transmitting terminals to its corresponding receiving terminal, the scheduling of the simultaneous transmissions including selecting a power level for each of the signal transmissions that satisfies the target quality parameter for each of the receiving terminals.

18. The communications terminal of claim 17 wherein the scheduler is further configured to schedule a different spreading code for each of the signal transmissions.

19. The communications terminal of claim 17 wherein the quality parameter comprises a carrier-to-interference ratio.

20. The communications terminal of claim 17 wherein the scheduler is further configured to schedule a data rate for each of the signal transmissions.

21. The communications terminal of claim 20 wherein the scheduled data rate for one of the signal transmissions from one of the transmitting terminals is used to determine the target quality parameter at the corresponding receiving terminal.

22. The communications terminal of claim 20 wherein the scheduled data rate for each of the signal transmissions is a function of the service requested for each of the terminal pairs.

23. The communications terminal of claim 17 further comprising a transceiver configured to broadcasting the schedule to each of the terminal pairs.

24. The communications terminal of claim 23 further comprising a signal processor configured to spread the broadcast with a code.

25. The communications terminal of claim 17 wherein the scheduler is further configured to schedule the simultaneous transmissions as a function of path loss information from each of the transmitting terminals to each of the receiving terminals.

26. The communications terminal of claim 25 further comprising a transceiver configured to receive the path loss information from one or more of the terminals, and memory configured to store the received path loss information, and wherein the scheduler is configured with access to the memory.

27. The communications terminal of claim 17 wherein the scheduler is further configured to select the terminal pairs from a piconet of terminals.

28. The communications terminal of claim 27 wherein the scheduler is further configured to schedule the simultaneous transmissions as a function of path loss information from each of the transmitting terminals to each of the receiving terminals.

29. The communications terminal of claim 28 further comprising a transceiver configured to receive the path loss information from one or more of the piconet terminals, and memory configured to store the received path loss information, and wherein the scheduler is configured with access to the memory.

30. The communications terminal of claim 28 wherein the scheduler is further configured to construct a piconet topology map, and derive at least a portion of the path loss information from the piconet topology map.

31. The communications terminal of claim 17 further comprising a transceiver configured to transmit one of the scheduled signal transmissions to a corresponding one of the receiving terminals.

32. The communications terminal of claim 17 further comprising a transceiver configured to receive one of the scheduled signal transmissions from a corresponding one of the transmitting terminals.

33. A communications terminal, comprising:  
means for selecting a plurality of terminal pairs each having a transmitting terminal and a corresponding receiving terminal;  
means for determining a target quality parameter for each of the receiving terminals; and  
means for scheduling simultaneous signal transmissions from each of the transmitting terminals to its corresponding receiving terminal, the scheduling of the simultaneous transmissions including selecting a power level for each of the signal transmissions that satisfies the target quality parameter for each of the receiving terminals.

34. Computer readable media embodying a program of instructions executable by a computer program to perform a method of scheduling communications, the method comprising:

selecting a plurality of terminal pairs each having a transmitting terminal and a corresponding receiving terminal;

determining a target quality parameter for each of the receiving terminals; and

scheduling simultaneous signal transmissions from each of the transmitting terminals to its corresponding receiving terminal, the scheduling of the simultaneous transmissions including selecting a power level for each of the signal transmissions that satisfies the target quality parameter for each of the receiving terminals.